#3728
Ok

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

February 7, 2011

TO: Internal File

THRU: Steve Christensen, Environmental Scientist III/Team Lead

FROM: Priscilla Burton, Environmental Scientist III/Soils pwpm SBS

RE: Mid-Term Review, Canyon Fuel Company, Dugout Canyon Mine, C/007/039, Task #3728.

SUMMARY:

The Division initiated a mid-term review of the Dugout Canyon Mine MRP on July 15, 2010 (see Outgoing file). The MRP itemizes the disturbed acres in the MRP Chap 1, pg 1-9 and in App. 1-4. The total disturbed area is approximately 104.7 acres (p. 1-9).
Chapter 2 (soils) has been updated with as built volumes and soil analyses and redistribution plans as described in the cover letter received with the amendment to the MRP on October 13, 2010.

The information should be approved.

TECHNICAL ANALYSIS:

OPERATION PLAN

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

Topsoil Removal and Storage

Refuse Site [09/15/10]

The refuse pile expansion was approved October 11, 2006. Table 2-2 of the RA provides the estimated topsoil and subsoil salvage to recovered from this expansion as 15,511 yd^3. A survey of the existing soil stockpiled is provided in Section 242.100 of the RA volume 1. Salvaged topsoil material is further identified in Section 242.100 as follows:

8,384 yd^3 topsoil volume.
9,211 yd^3 subsoil volume.

Plate 2-2 is an as-built drawing of the stockpiled soil, which reflects the information gathered by aerial survey.

The relocated stockpiles were seeded in the fall of 2009. No mulch was applied. The relocated stockpiles were observed during the site visit on 8/25/2010. From a distance, the piles look barren, but vegetation is becoming established in the low spots of the gouges. See photographs in the 8252010 image folder.

Boulders have been stockpiled at the refuse site for the purpose of reclamation. The storage of boulders is described in Section 234.100 of the RA volume 1. During the site inspection on 8/25/2010, Ms. Vicky Miller stated that the boulders were in the way at the refuse site and that she had discussed giving the boulders to the Division's AMR program for the Knight/Ideal project. This idea was discouraged and the beneficial use of the boulders during final reclamation was discussed. The MRP in Section 234.100 pg. 2-13 discusses several potential storage locations for the boulders that would be out of the way of the activity at the refuse site.

Pace Canyon [09152010]

Two stockpiles were constructed in Pace Canyon in 2005. Appendix 2-9 Figure 1 shows the location and capacity of the stockpiles. Both are located on undisturbed ground that is demarcated with marker strips. These stockpiles were estimated to hold 566 and 3,027 yd^3. They have been constructed with 2h:1v side slopes (Appendix 2-9). Final as-built volumes are reported in MRP, Chapter 2, Table 2-2 as 1,941 yd^3 in the north pile and 1,218 yd^3 in the south pile. Figure 1 in Appendix 2-9 indicates the maximum depth of the south stockpile is 15 – 17 feet. The maximum depth of the north stockpile is 10 ft deep. Appendix 5-10 and Plate PC5-2, Pace Canyon Surface Facilities, also provide information on the Pace Canyon facility. Plate PC5-2 was revised in 2009 to provide operational and pre-mining topography information. The entire disturbed area is fenced to protect the topsoil stockpiles from grazing and to protect the livestock herd in Pace Canyon Grazing Allotment No. 24085. The topsoil stockpiles were observed to be well vegetated during the site inspection on 8/25/2010.

The north stockpile is surrounded with a subsoil berm Section 234.200). This berm is three feet tall at its lowest point (designs for this berm are on pg 37 of Attachment 1 in Appendix 7-12). The south stockpile has berms on either side directing flow to a silt fence. At the lower portion of the pile, this berm is two feet tall (designs in Appendix 7-12 Attachment 1, pp. 36-38).

Topsoil at Pace Canyon was temporarily stockpiled above the portal and along the channel diversion area for immediate replacement after construction of the portal and channel diversion (Plate PC5-2 and MRP section 242.100.) The Permittee indicated in the cover letter dated October 13, 2010, that this statement refers to reclamation activities and has revised Section 242.100 accordingly.

Section 233.200, p. 2-36, states that salvaged soils at the Pace Canyon site will be sampled and analyzed after stockpiling for baseline soil information. Results of this analysis are found in Appendix 2-4.

Dugout/Soldier Canyon Storage Area [09/15/10]

There exist four stockpiles at the Dugout portion of the Soldier Canyon Storage Area (Plate 2-3). The first pile was created during Phase I construction. The second stockpile was created during Phase II construction of the mine site (permit issued on 10/16/98). A third pile contains riparian soils from the Gilson water well development. The fourth pile created during substation construction is part of the soil/rock storage area specified on Plate 2-3. All piles are signed.

The plan includes information on pile construction in Sections 224, 231.100, 231.400 and Plate 2-2 and App. 2-5. Table 2-2 provides an estimate of topsoil salvage by location and an as-

built volume for each stockpile. The total volume of all stockpiles was surveyed and found to be 26,247 yd^3 of soil (Table 2-2 and Sec. 233.200).

The Area #5 soils described in Section 231.100 of the MRP, were placed at the south end of the north pile (App. 2-6 and Plate 2-3).

Plate 2-5A provides the locations of steep slope soil removal (as per the commitment at the bottom of page 2-29 of the MRP).

Section 234.200 describes measures that may be taken to maintain a noxious weed and cheatgrass free state at the Dugout/Soldier Canyon stockpile site. Some measures were necessary in 2007 and 2008 on the Soldier Canyon topsoil stockpile as outlined in Inspection Report # 2107, but no weed control has been necessary to date on the Dugout Canyon stockpiles.

The Dugout topsoils stockpile site was evaluated on September 15, 2010. The two large Dugout stockpiles are dominated by wild mustard and Russian thistle. Although undesireable, these plants do provide upwards of 90% cover on the piles and are protecting the soil from erosion. More desireable species, such as Cleome, Asteraceae, Chrysothamnus, and Artemesia are moving in from the perimeter of the piles. Grasses are doing along the access between piles. The smaller piles at the site are well vegetated with grasses and Chrysothamnus.

Degas Well Storage Areas [09/15/10]

The total disturbed acreage for all degas wells is 37.4 acres (Table 1-2 Degas Well Volume). This figure does not include the 15-acre AMV road and topsoil stockpiles along the AMV road. The volume of topsoil in storage at the wells is itemized in Table 2-1 of the Degas Volume. Attachment 5-2 includes a reclamation record showing that sites G-2 through G-7 and G-13 have been contemporaneously reclaimed as of 2009. During a site visit on August 25, 2010, the V. Miller reported G10 and G14 had recently been reclaimed; G14 was roughened but not seeded at the time of the site visit; Site G9 was in the process of reclamation; G19 reclamation would begin in mid-September, with both Nelco and Thayn Construction doing the work.

During the same site visit, the Division observed the topsoil stockpiles associated with G16, the G16 access road, G18, and the AMV road. It was noted that those piles that are fenced are doing quite well.

Findings:

The information is recommended for approval.

RECOMMENDATIONS:

The information is recommended for approval.

O:\007039.DUG\WG3728\pwb3728.doc